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IP GROUP OF DLA PIPER RUDNICK GRAY CARY US LLP  
1650 MARKET ST  
SUITE 4900  
PHILADELPHIA, PA 19103

EXAMINER

SHANNON, MICHAEL R

ART UNIT PAPER NUMBER

2614

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/881,075

Applicant(s)

LECOMTE, DANIEL

Examiner

Michael R. Shannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☒ Claim(s) 18-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hendricks et al (USP 5,559,549), cited by examiner.

Regarding claim 1, the claimed “video interfacing apparatus for connecting at least one display device to at least one video source” is met as follows:

- The claimed “module including a dedicated and programmed digital processor adapted to decode and descramble a video flow according to a preloaded decoding or descrambling program, in order to 1) display, in real time or delayed in time, 2) store, 3) record and/or 4) send the video flow over a telecommunication network” is met by the Microprocessor 602, which can decode and decrypt/descramble a program received from the cable head-end using the decryptor 600 and decompressor 618 [col. 10, lines 17-22]. The STB serves to display the processed program in real-time on the television display or delayed time after being sent through local storage in order to add a menu template [col. 10, lines 43-47]. Also, the program can be sent to a VCR for recording and storage of the program [col. 10, lines 26-29]. Also, the video flow can arrive at the

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customer premises via a telephone connection over a telecommunications network as disclosed in column 13, lines 21-26.

- The claimed "at least one screen interface" is met by television [Fig. 6], which receives video signals processed by the STB 220 [col. 10, lines 26-29].
- The claimed "at least one storage or recording interface" is met by optional VCR, which receives video signals processed by the STB 220 [col. 10, lines 26-29].
- The claimed "local or wide area network connecting interface" is met by the connection to the reception means for receiving television program signals from the cable head-end [col. 13, lines 21-26].
- The claimed "user communication and controlling interface" is met by the remote control interface 626 [Fig. 4], which uses the remote control unit 900 as user input means [col. 14, lines 24-26].

Regarding claim 2, the claimed "apparatus according to claim 1, wherein the storage or recording interface(s) comprise(s) a hard disk interface and/or an analog or digital video recorder interface, selected from the group consisting of a video cassette recorder interface, a CD recorder and a DVD recorder" is met by the optional VCR, which receives video signals processed by the STB 220 [col. 10, lines 26-29] for storage.

Regarding claim 3, the claimed "apparatus according to claims 1 or 2, wherein the screen interface(s) comprise(s) a standard wire connection screen interface and/or

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a wireless screen interface and wherein the user communication and controlling interface consists of a remote control interface selected from the group consisting of a wire and/or wireless joystick, a wire and/or wireless keyboard and any device using wire or wireless technology” is met by television, which is connected via a wire to the STB 220 and receives video signals processed by the STB 220 [Fig. 6 & col. 10, lines 26-29]. Also, the wireless remote control 900 meets the claimed [col. 14, lines 24-26].

Regarding claim 4, the claimed “apparatus according to claim 1, wherein the module also includes at least one smart card or credit card style memory card reader interface” is met by computer card that is inserted into the expansion slot in STB 220 [col. 11, lines 36-43].

Regarding claim 5, the claimed “apparatus according to claim 1, wherein the network connecting interface is linked to a wide area network, directly or through a local area network forming an access network, and consists of a digital subscriber line interface, or a cable interface, of an optical fiber line interface or of an air interface for radio communication” is met by the discussion of the delivery network used for delivering program signals from the cable head-end to the STB 220, two of which are coaxial cable, and fiber cables [col. 13, lines 21-26].

Regarding claim 7, the claimed “apparatus according to claim 1, wherein the module includes all the interfaces and is an independent device mounted in a corresponding protective box” is met by the fact that the STB 220 is an independent box that is placeable above or below the television set [col. 10, lines 11-15].

Regarding claim 9, the claimed "distribution system for transferring encoded video programs and sequences over a wide area network towards authorized users or system subscribers for display under selected conditions on adapted screens" is met as follows:

- The claimed "one or more multimedia servers for collecting and storing at least video programs and sequences" is met by Cable Head end 208, which receives signals from the Operations Center 202 and stores and processes them for distribution via network to STBs 220 [col. 8, lines 50-57].
- The claimed "each of said multimedia servers being connected, directly or via a portal or gate server and/or an access network, to the wide area network" is met by the connection from the cable head end 208 to the subscriber's STB 220 via communication media 216 [col. 8, lines 58-63] brought about by the network options discussed in column 13, lines 21-26.
- The claimed "plurality of video interfacing arrangements according to claim 1, also linked to the wide area network, and installed at a users' home(s) or at predetermined locations, each video interfacing arrangement being associated with at least one television screen type display device" is met by the discussion above with regards to claim 1 and the attachment of each STB to the network for receiving television program signals from the cable head-end [col. 13, lines 21-26]. Each STB 220, as discussed in

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claim 1 above is associated with a television display screen [Fig. 6], which receives video signals processed by the STB 220 [col. 10, lines 26-29].

Regarding claim 10, the claimed "distribution system according to claim 9, wherein at least one of the multimedia servers is associated with telecommunication or broadcast reception means and that at least one multimedia server is connected to directly access the wide area network" is met by the cable head end 208, which is associated with the operations center 202 for receiving program signals and sending them to the STB's 220 over the network [col. 8, lines 40-45].

Regarding claim 11, the claimed "distribution system according to claim 9, wherein the multimedia servers and/or the portal server(s) comprise means to encode and scramble video data, including means to add and entangle cryptographic and security information at the beginning and along sequences thereof upon unauthorized viewing, copying or reviewing of a sequence" is met by the cable head end's 208 ability to scramble, encode, and encrypt the video signals sent to the STB's 220 [col. 9, lines 21-22] and the head end's ability to monitor authorized channel access [col. 9, line 34].

Regarding claim 12, the claimed "distribution system according to claim 11, wherein the multimedia server and/or the portal server comprises preloaded decoding or descrambling software stored in its memory" is met by the fact that the cable head end 208 encodes, encrypts, and scrambles the television signal prior to distribution to the STB's 220 over the network [col. 9, lines 21-22].

3. Claims 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Wunderlick et al (USP 5,631,693).

Regarding claim 13, the claimed "method for delivering video programs and/or sequences collected by and/or stored in adapted multimedia servers through a wide area network to authorized users provided with apparatus according to claim 9" is met as follows:

- The claimed step of "addressing a concerned multimedia server or an associated portal server through the wide area network and ordering transfer of one or several given video program(s) or sequence(s) to an identified video interfacing arrangement also connected to said wide area network for immediate display or for at least partial storage and delayed display" is met by the receiving of a subscriber request by the on demand controller 51 [col. 9, lines 1-3].
- The claimed step of "checking the user's authorization at the concerned portal server and, if the case occurs, preloading an adapted transfer protocol and/or decode or descramble software from said portal server towards said video interfacing arrangement" is met by the "authorization" of the user to view a requested on-demand program, as discussed in column 9, line 17.
- The claimed step of "transferring the ordered program(s) and/or sequence(s) associated with identity, security, cryptographic and/or handling restriction information, preceding or entangled with the video



data flow” is met by the message that is sent to the subscriber to inform them of video flow commencement and authorization status [col. 9, lines 16-26].

- The claimed step of “displaying, transferring, recording or handling in another way the transferred video program(s) and/or sequence(s) upon user's instructions, after checking identity of the user and rights, in accordance with possible handling restrictions” is met by the display of the requested program upon authorization to display [col. 9, lines 34-40].

Regarding claim 14, the claimed “method according to claim 13, wherein the handling restrictions comprise limitations selected from the group consisting of maximum number of viewing, maximum local storage time, fixed display time, uninterrupted display, absence of rewind and/or forward features and no copying possibility” is met by the ability for the system to only allow viewing of a user requested program at a specific time that is available based on the availability of a channel within the distribution network [col. 9, lines 16-26].

Regarding claim 15, the claimed “method according to claim 13, wherein the preloaded decode or descramble software is integrated within the video content” is met by the fact that the information necessary to unscramble the scrambled signal is carried on the timing pulses of the scrambled channel [col. 10, lines 27-31].

Regarding claim 16, the claimed “method according to claim 13, wherein the preloaded decode or descramble software is automatically sent to the video interfacing arrangement” is met by the fact that the information necessary to unscramble the

scrambled signal is carried on the timing pulses of the scrambled channel and are delivered automatically with the requested video [col. 10, lines 27-31].

Regarding claim 17, the claimed "method according to claim 13, wherein the preloaded decode or descramble software is sent to the video interfacing arrangement only on request" is met by the fact that the information necessary to unscramble the scrambled signal is carried on the timing pulses of the scrambled channel and are delivered automatically upon video request [col. 10, lines 27-31].

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al (USP 5,559,549), cited by examiner.

Regarding claim 6, the Hendricks reference teaches all of that which is discussed above with regards to claim 1. The Hendricks reference, does not, however, disclose "wherein the module also includes a video camera interface for connecting at least one local camera, to facilitate transmission links with distant web cams through the network connecting interface". The Hendricks reference does makes a brief mention of a video input port, which could be used to input video to the system [col. 15, line 47]. The Examiner takes Official Notice that it is notoriously well known in the art to include web-

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cam like devices into set-top-boxes as a means for integrating current television technology and video conferencing technology. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement a video camera interface for connecting a local camera for the use of a web cam network, in order to integrate the video-conferencing and television technologies.

Regarding claim 8, the Hendricks reference teaches all of that which is discussed above with regards to claim 1. The Hendricks reference, does not, however, disclose "wherein the module, and the interfaces, are mounted inside a television, on an electronic control card of said television or at least partially on a separate card, the dedicated digital processor comprising a monoprocessor or media processor and/or being identical with a processor of the television". The Examiner takes Official Notice that it is notoriously well known in the art to integrate STB's and their associated parts and technology into the design of the television and is simply a matter of design choice, making it easier to use and buy for the consumer. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to integrate the design of the module with all of it's components into the television, in order to provide a single, more user-friendly and easier to manage box.

6. Claims 18-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al (USP 5,559,549), cited by examiner, in view of Ishibashi (USP 6,021,199), cited by examiner.

Regarding claim 18, the Hendricks reference teaches all of that which is discussed above with regards to claim 9. The Hendricks reference does not teach "a portal server which keeps a small part of multimedia content, so that not all information needed to monitor the content is stored on a hard disk to prevent illegal copying of the content, and in that the video interfacing arrangement connects to the portal server to get the remaining information to be able to display the multimedia content". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM, which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 19, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 18. The Hendricks reference does not teach, "for a MPEG or MPEG like stream, a small part of information in said stream consists of some or all of I pictures". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-

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ROM, which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. All of the I-pictures are stored on the DVD-ROM, and therefore, meet the claim. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 20, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 18. The Hendricks reference does not teach "for a MPEG or MPEG like stream, the portal exchanges some or all of the I pictures in the stream sent to the video interfacing arrangement, and small information kept on the portal server consists of information needed to restore the real order of the I pictures". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the information needed to restore the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be

implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 21, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 18. The Hendricks reference does not teach "for a MPEG or MPEG like stream, the portal server may use a) a small part of information in said stream consisting of some or all of I pictures and b) some or all of the I pictures in the stream sent to the video interfacing arrangement, and small information kept on the portal server that consists of information needed to restore the real order of the I pictures". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the information needed to restore the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the

teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 22, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 20. The Hendricks reference does not teach, "wherein the program restoring the real order of the I pictures is partially stored in the portal server". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the program restoring the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 23, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 20. The Hendricks reference does not teach, "wherein the program restoring the real order of the I pictures is totally stored in the portal server". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the

program restoring the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 24, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 20. The Hendricks reference does not teach, "wherein the program restoring the real order of the I pictures is executed in the module". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the program restoring the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been



clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 25, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 20. The Hendricks reference does not teach, "characterized in that the program restoring the real order of the I pictures is executed in the portal server". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the program restoring the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 26, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 20. The Hendricks reference does not teach, "wherein the program restoring the real order of the I pictures is executed partially in the module, and partially in the portal server". The Ishibashi reference

teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM (meeting the program restoring the real order of the I pictures), which serves to help the decoder in descrambling the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 27, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 18. The Hendricks reference does not teach, "method according to claim 18, wherein missing I images are sent with a high level of security, being scrambled by a dedicated algorithm in the portal server to prevent copying of the I images". The Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM, which serves to help the decoder in descrambling ALL (including those delivered later in the stream) of the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be

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implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 28, the Hendricks reference teaches all of that which is discussed above with regards to claim 9. The Hendricks reference does not teach, "for a given multimedia content, the content is sent only once to the portal server, which then sends it to all interested modules". The Ishibashi reference teaches that the DVD-ROM is encoded once and then sent out to as many users as are authorized and purchase the DVD [col. 4, lines 19-33]. The Ishibashi reference further teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM, which serves to help the decoder in descrambling of the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying

of programming content.

Regarding claim 29, the Hendricks reference teaches all of that which is discussed above with regards to claim 9. The Hendricks reference does not teach, "wherein the portal server may store part or whole of the multimedia content, to be able to send it to any module without having to query the multimedia server". The Ishibashi reference teaches that the DVD-ROM is encoded once and then sent out to as many users as are authorized and purchase the DVD without the need to re-encode at the factory every time the DVD is viewed [col. 4, lines 19-33]. The Ishibashi reference further teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM, which serves to help the decoder in descrambling of the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 30, the Hendricks reference teaches all of that which is discussed above with regards to claim 9. The Hendricks reference does not teach, "wherein the module may store part or all of the multimedia content on a hard disk, so

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that need not stop the incoming stream whenever a user wants to pause, or to ask again for a previous content". The Ishibashi reference teaches that the DVD-ROM is encoded once and then sent out to as many users as are authorized and purchase the DVD without the need to re-encode at the factory every time the DVD is viewed [col. 4, lines 19-33]. The reference teaches a HDD and VRAM at the viewer, which serve to store the DVD-ROM data for processing at an authorized location [col. 5, line 65 – col. 6, line 6]. The Ishibashi reference further teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM, which serves to help the decoder in descrambling of the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

Regarding claim 31, 32, and 33, the Hendricks and Ishibashi references teach all of that which is discussed above with regards to claim 30. The Hendricks reference does not teach claims that the portal server, multimedia server, or module, respectively, may decide that the module stores the multimedia content on the hard disk. The

Ishibashi reference teaches a DVD-ROM drive that contains scramble rule data encoded onto the lead-in section of the DVD-ROM, which serves to help the decoder in descrambling of the scrambled I-pictures on the DVD-ROM [col. 2, lines 44-50]. The reference further teaches HDD and VRAM at the viewer, which serve to store the DVD-ROM data for processing at an authorized location [col. 5, line 65 – col. 6, line 6]. The concept of the portal server, multimedia server, or module deciding that the module stores the content on the hard disk is inherent by the fact that the content is stored on the disk for processing purposes. The concept of scrambling the I-frame data on the DVD-ROM and providing scramble rule data that enables the descrambler to access the correct I-frames can easily be implemented in a very similar fashion in the server/client architecture. The server could store an MPEG file with some or all of the I-frames scrambled and a program for descrambling the I-frames. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the teachings of the scrambled I-frames and I-frame descrambling program, in order to prevent unauthorized copying and displaying of programming content.

7. Claims 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al (USP 5,559,549), cited by examiner, in view of Donahue et al (USP 6,266,339), cited by examiner.

Regarding claim 34, the Hendricks reference teaches all of that which is discussed above with regards to claim 9. The Hendricks reference does not expressly

disclose "when establishing a certified connection between a receiving device and a multimedia server, the receiving device transmits an identifier specific to it to the portal server, the portal server then determines the address corresponding to the identifier received, the portal server having stored in its memory every identifier of authorized receiving devices with their corresponding physical address, the portal server then calling the device located at the address corresponding to the identifier received". The Donahue reference discloses a system that sends a join request to the IPMS to join a current multi-cast session or open a new multi-cast session including the address of the client that is requesting the join [col. 17, lines 51-60]. Furthermore, verification is done via a routing table using the address of the client to determine if the client is authorized to receive the program [col. 10, lines 7-11]. Finally, the server sends the requested signal to the requesting device [col. 8, lines 48-50]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to join a multicast group and authorize addresses to thereupon multicast a program to requesting viewers, in order to allow for significant security enhancements so that only authorized viewers are allowed access to the content, and to save bandwidth by using a multicast protocol.

Regarding claim 35, the Hendricks and Donahue references teach all of that which is discussed above with regards to claim 34. The Hendricks reference does not expressly disclose "wherein completion of an additional step where the portal server asks its identifier to the called back receiving device and the confirmation that this receiving device is trying to establish a connection with this calling portal server". The

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Donahue reference teaches that a TCP/IP communication ensues that enables the server to confirm that a client is trying to gain access to the multimedia content via the domain and to avoid conflicts within the domain [col. 10, lines 7-11]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to join a multicast group and authorize addresses to thereupon multicast a program to requesting viewers, in order to allow for significant security enhancements so that only authorized viewers are allowed access to the content, and to save bandwidth by using a multicast protocol.

Regarding claim 36, the Hendricks reference teaches all of that which is discussed above with regards to claim 9. The Hendricks reference does not teach, "wherein the module can also be used as a server for delivering interactive video programs and/or sequences collected by and/or stored in its memory or hard disk". The Donahue reference teaches that the domain computer can be used to distribute content via the multicast streams to multiple clients within the system [col. 10, lines 7-11]. Therefore, the domain computer can act as a secondary server, with the ability to route programs without the need for a requesting client/module to contact the main server and waste valuable time and bandwidth. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to join a multicast group and authorize addresses to thereupon multicast a program to requesting viewers, in order to allow for significant security enhancements so that only authorized viewers are allowed access to the content, and to save bandwidth by using a multicast protocol.



Regarding claim 37, the Hendricks and Donahue references teach all of that which is discussed above with regards to claim 36. The Hendricks reference does not disclose, "wherein the module can deliver its contents directly or via a portal or gate server and/or an access network, through a wide area network to authorized users equipped with another module". The Donahue reference teaches that the domain computer can be used to distribute content via the multicast streams to multiple clients within the system [col. 10, lines 7-11]. Therefore, the domain computer can act as a secondary server, with the ability to route programs without the need for a requesting client/module to contact the main server and waste valuable time and bandwidth. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to join a multicast group and authorize addresses to thereupon multicast a program to requesting viewers, in order to allow for significant security enhancements so that only authorized viewers are allowed access to the content, and to save bandwidth by using a multicast protocol.

Regarding claim 38, the Hendricks and Donahue references teach all of that which is discussed above with regards to claim 36. The Hendricks reference does not disclose, "wherein the portal or gate server is a controller for contents which are to be delivered by the module". The Donahue reference teaches that the domain computer can be used to distribute content via the multicast streams to multiple clients within the system [col. 10, lines 7-11]. Therefore, the domain computer can act as a secondary server, with the ability to route programs without the need for a requesting client/module to contact the main server and waste valuable time and bandwidth. It would have been

obvious to one of ordinary skill in the art at the time of the invention to include the ability to join a multicast group and authorize addresses to thereupon multicast a program to requesting viewers, in order to allow for significant security enhancements so that only authorized viewers are allowed access to the content, and to save bandwidth by using a multicast protocol.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 19-21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Regarding claim 19-21, the phrase "MPEG like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "MPEG like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

***Claim Objections***

11. Claims 18-38 are objected to because of the following informalities:

The claims state "The method according to Claim \_\_\_\_" as the preamble, however, according to the drafted claims, which are ultimately dependant upon Claim 9, the claims should read "The distribution system according to Claim \_\_\_\_", as is assumed throughout the office action. Appropriate correction is required.

***Drawings***

12. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the applicant failed to follow the rules set forth in 37 CFR 1.84(a)(1), 1.84(g), and 1.84(l). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Agrawal et al (USP 6,480,537) disclose a system for sending decoding software entangled in the encoded video stream.

Gelman et al (IEEE) disclose a store-and-forward VOD architecture for a basic VOD service running in a cable environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

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Michael R Shannon  
Examiner  
Art Unit 2614

Michael R. Shannon  
June 6, 2005



**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**